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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,778	03/16/2004	Koichi Kawamura	Q80446	2631
23373	7590	11/28/2007		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER AHMED, SHEEBA	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/800,778	Applicant(s) KAWAMURA ET AL.	
	Examiner Sheeba Ahmed	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-14, 16 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14, 16 and 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendments

1. Amendments to claims 9, 12, 16, and 20 have been entered in the above-identified application. Claims 1-8, 15, and 17-19 have been cancelled. New claims 23-25 have been added. **Claims 9-14, 16, and 20-25 are now pending and under consideration.**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 9-14, 16, and 20-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawamura et al. (US 6,811,878 B2).

Kawamura et al. disclose a conductive film comprising conductive fine particles adsorbed on a support, a conductive film comprising a transparent conductive layer such as an ITO layer provided on a support and a conductive film comprising a conductive polymer film provided on a support (Column 1, lines 9-15). The conductive film is produced by forming a hydrophilic surface by making hydrophilic polymer chains present on the surface and combining the hydrophilic surface and a conductive polymer.

The graft polymer has a high ion-adsorbing property and hence the graft polymer has a strong ability to adsorb charged particles and allow arrangement and dense line-up of the conductive particles (Column 3, lines 8-19). The surface layer densely lined up with conductive fine particles can be formed without using any binder. A transparent conductive film can be readily formed by selecting transparent materials for the support and specifying the diameter of the conductive fine particles to be adsorbed (Column 45-64). Methods for forming a surface having surface graft polymers includes a method in which a reactive functional group such as a trialkoxysilyl, isocyanate, amino, hydroxyl, and carboxyl are attached to the terminal of a polymer compound chain to cause a coupling reaction with the functional group on the surface of the support (Column 5, lines 12-20). In order to produce a transparent conductive film, especially for the purpose of securing light transmission, the diameter of the particles used is in the range of 0.2 to 100nm. The particles, ionically bind to the graft surface, are disposed in a regularly aligned manner to form a monolayer (Column 6, lines 45-55). Examples 1 and 2 describe grafting acrylic acid to the surface of a PET film and immersing the grafted PET film in a dispersion of Ag particles. Any excess dispersion of fine particles is then removed to produce a conductive film. Column 6, lines 35-44 state that the particle size of the fine metal particles is in the range of 0.1 to 100nm and Column 12, lines 63-68 state that the thickness of the layer forming the hydrophilic graft polymer is 0.001 to 10 microns. With regards to the limitation that the fine particles do not interact with the hydrophilic functional group of the graft polymer such that the movement of the particles is not hindered, the Examiner takes the position that the structure taught by Kawamura

et al. meets this limitation given that the particle are capable of rotating (i.e., a type of movement) and hence all limitations of claims 9-14, 16, and 20-25 are disclosed in the above reference.

3. Claims 9-14, 16, and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawamura et al. (US 6,566,029).

Kawamura et al. disclose a lithographic printing plate precursor which comprises a support having a hydrophilic surface containing hydrophilic graft polymer chains and a heat sensitive layer containing at least either of fine particulate polymer or microcapsules (Column 2, lines 14-18). The support is provided with a hydrophilic surface wherein hydrophilic graft polymer chains exist. The hydrophilic graft polymer chains may directly be bound to the surface of the support or may be provided by coating or by coating followed by crosslinking (Column 3, lines 1-8). Another method for forming a surface having formed therein the surface graft polymer comprises providing a reactive functional group such as a trialkoxysilyl group, an isocyanate group, an amino group, a hydroxyl group, or a carboxyl group (Column 3, lines 50-57). The heat sensitive layer contains fine particulate polymers such as a thermoplastic fine particulate polymer having a functional group capable of mutually acting with the hydrophilic graft polymer (Column 6, lines 2-5). The heat sensitive layer is formed by dissolving or dispersing the particles in a solvent to prepare a coating solution then coating the coating solution on the hydrophilic surface of the support. The coating amount of the heat sensitive layer is 0.5 to 5.0 g/m² (Column 16, lines 45-65). The examples illustrate that the heat sensitive layer is dried in an oven at 100°C for 60 seconds after coating (Column 20, lines 46-53).

Column 15, lines 23-25 state that the particle have a particle size of 1 to 500nm. With regards to the limitation that the fine particles do not interact with the hydrophilic functional group of the graft polymer such that the movement of the particles is not hindered, the Examiner takes the position that the structure taught by Kawamura et al. meets this limitation given that the particle are capable of rotating (i.e., a type of movement) and hence all limitations of claims 9-14, 16, and 20-23 are disclosed in the above reference.

Response to Arguments

4. Applicant's arguments, with respect to the rejection of claims 9-14, 16, and 20-22 under 35 U.S.C. 112, second paragraph, as being indefinite have been fully considered and are persuasive. The rejection of claims 9-14, 16, and 20-22 under 35 U.S.C. 112, second paragraph has been withdrawn in light of the arguments and the amendments submitted on September 4, 2007.

Applicant's arguments, with regards to the rejection of claims 9-14, 16, and 20-25 under 35 U.S.C. 102(e) as being anticipated by Kawamura et al. (US 6,811,878 B2) and the rejection of claims 9-14, 16, and 20-23 under 35 U.S.C. 102(e) as being anticipated by Kawamura et al. (US 6,566,029), have been fully considered but they are not persuasive. Applicants submit that the claims have been amended to recite that the particles do not interact with the hydrophilic functional group of the graft polymer "such that the movement of the particles is not hindered" and that the cited references do not anticipate the amended claims because, e.g., the ionic binding in Kawamura '878 would

hinder the movement of the particles, and the functional group capable of mutually acting with the hydrophilic graft polymer in Kawamura '029 would also hinder the movement of the particles. However, as pointed out above, the Examiner has taken the position that the structure taught by Kawamura et al. meets the limitation that the fine particles do not interact with the hydrophilic functional group of the graft polymer such that the movement of the particles is not hindered given that the particles are capable of rotating (i.e., a type of movement) and hence meet the claim limitations. Furthermore, the Examiner would like to point out that although the Applicants argue that the ionic binding in Kawamura '878 would hinder the movement of the particles, the claims as instantly recited do not preclude the particles from ionically interacting with the hydrophilic group; the claims simply require that the particle be capable of movement.

Hence, the above rejections are maintained.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571)272-1504. The examiner can normally be reached on Monday-Friday from 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.


Sheeba Ahmed
November 22, 2007